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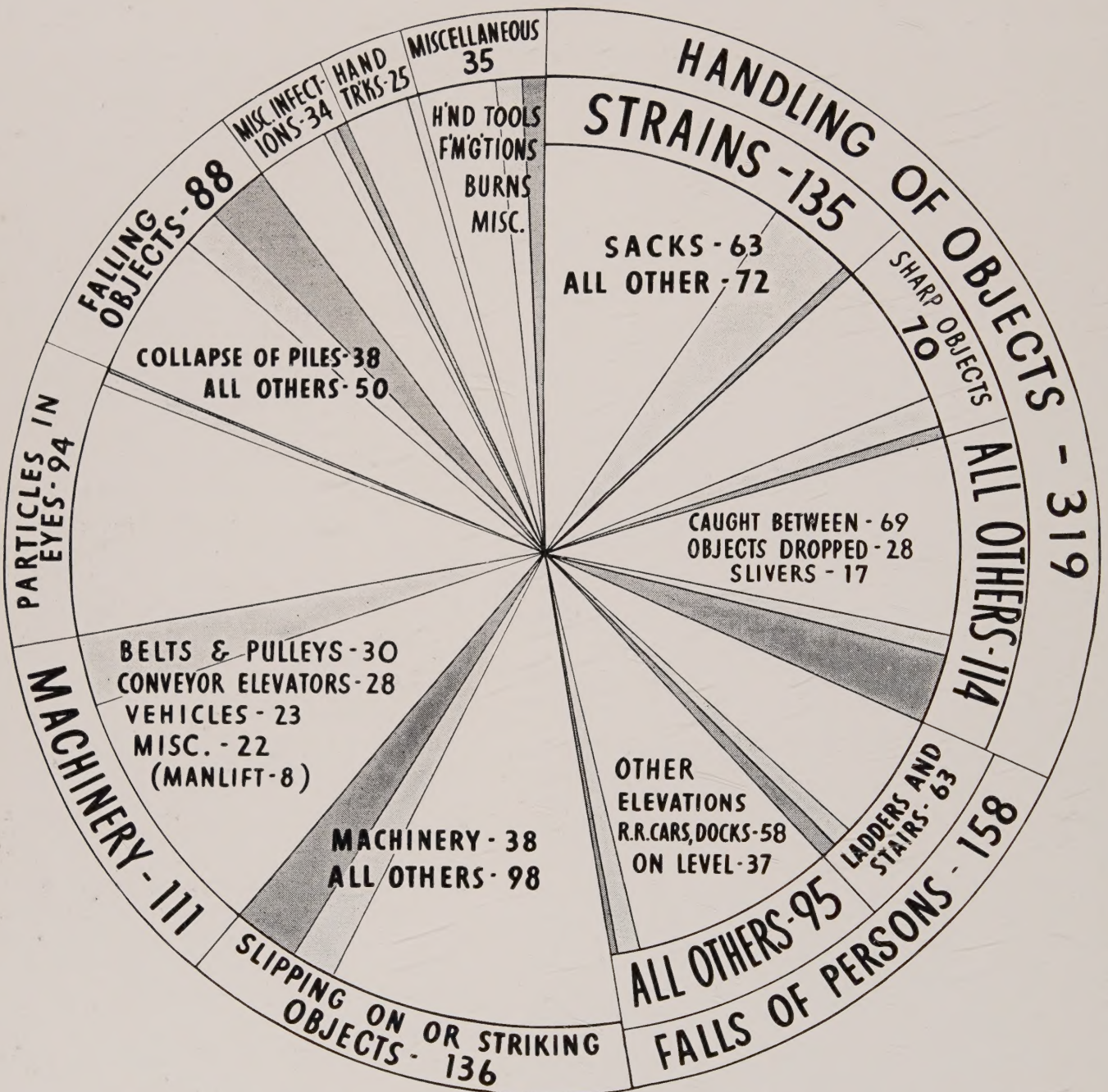
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Analysis of 1000 Accidents to Employees in Grain Elevators



Key: White — Elevator; Light shaded — Track shed; Dark shaded — Other plant operations.

Prepared by and printed through the courtesy of the Safety Engineering Department of Lumbermen's Mutual Casualty Company, Chicago.

Editorial

WORSE THAN AVERAGE

FOR the first time known, the accident rate of the grain and grain processing industry has soared painfully above that of general industry. And this comparison is based solely upon the excellent records of those entered in the Superintendents' Society Safety Contest, whose figures are looked upon as "tops" in the industry; "tops" because only a small percentage of the Society's contest participants enter with poor safety records solely for the psychological effect upon their plant staffs, — particularly when there is so much honor, recognition, praise, and pride of achievement attached to winning or being a runner-up.

Nearly 4,500 industrial establishments reported their 1938 accident records to the National Safety Council, which reveals a combined frequency rate of 12.18 per million man-hours worked, — 16 per cent less than for the preceding year. This compares with the average in our industry of 15.01 in 1938, — a figure twenty-three per cent higher than all general hazardous industry combined. Our industry's frequency rate the year before was 12.01, — and lest we be deluded into deducting falsely let us understand that these figures cover accidents and injuries only, none of which resulted from slight or serious dust explosions.

While the severity rate (days lost per 1,000 man-hours worked) of all other industries combined totaled 1.53 for 1938 — a five per cent decrease under the preceding period — that for the grain and grain products contestants jumped up from 0.22 in 1937 to 0.49 in 1938, — more than double.

The annual cost of medical care necessary because of all these accidents and injuries, is estimated by the National Safety Council at \$3,477,000,000 and the wage loss at \$1,000,000,000.

It would appear — aside from the humanitarian considerations of saving lives, lost time, pain and hardships on the injured and his dependents — that our operating costs are mounting, that economies from losing trained men are being cast asunder, that efficiencies are doing a "Jack and Jill" with our accident records.

That's all right if we can afford it, and want to keep up this degrading influence. We doubt, however, that any Manager or Superintendent will knowingly or willingly permit Ol' Man Accident to continue to steal from him, — particularly when it is so simple and inexpensive to join the Superintendents' Society Safety Contest and keep bouyed up with practical, applicable, and pungent inoculations of accident-prevention serum carefully cultured from the veins of those who are outstandingly immune.

Obviously, from the record, if the Superintendents' Society never accomplished another goal — which they naturally are doing every year of their existence — their creation, entity and perpetration warrants EVERYONE'S prompt alignment on this Safety Contest score alone. After all, the evidence of *one* accident or injury would show from 100% to 10,000% return upon the investment. Could anyone ask for more?

GRAIN

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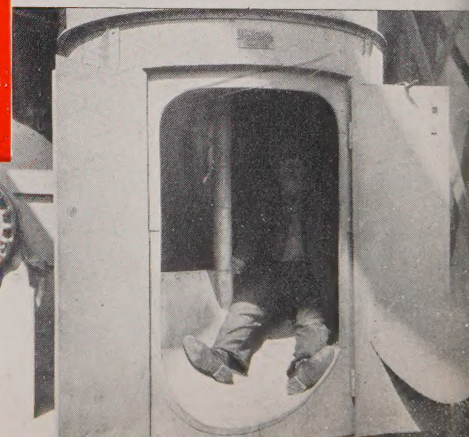
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WOODEN ELEVATORS

Do EXPLODE

B-O-O-M! went a violent thunderbolt-like blast whose reverberations stunned and startled a busy section of Chicago as it hurried on its way to work at 8:50 A. M. on Thursday morning, May 11th. The repercussions stiffened the vibrant atmosphere for miles around. All other sound seemed hushed as though in anticipation of other sudden blasts to follow. For moments the tick of the clock reigned supreme.

Telephone wires started to jam. Excitement sky-rocketed. The Chicago Board of Trade tenants stammered and stuttered and dashed to their South windows between anxious conversations from within and without.

Soon screaming headlines of extra editions incensed active imaginations as multi-colored blue, green and purple blazes some fifteen miles away stupefied spectators with their enormity and freakishness.

Little by little fragments of news sifted in amid a maze of conflicting reports . . . Rosenbaum Brothers' Calumet Elevator exploded! But was it one, two, three or all four of the units that were afire? . . . Where did the blast start? . . . How? . . . How many were killed or injured? . . . Was the fire under control? . . . Were any men trapped atop the plant as is so often the case? . . . How much can be saved or salvaged? . . .

"How's Superintendent Bill Gassler?" everyone asked as if in a single breath.

With the heaven blackened with smoke, the blazes appeared to leap two to three times the height of the well kept plant. Looking through the binoculars one could not help but imagine hearing the crackling of roaring tinder. Ceaselessly the erupting volcano poured molten debris into the placid skies. On into the morning, into the afternoon, through the evening . . . the night . . . and into the next day the blaze twisted and fiercely fought the efforts of the fire departments for supremacy. Two other elevators across a 110 foot slip had caught fire and helped cast

CHICAGO CRIPPLED?

"To settle an argument as to crippling Chicago's grain handling facilities for the coming new crop, I'm asking how many elevators are left and the approximate capacity as a whole," writes Frank A. Peterson, Norris Grain Company, Baltimore.

Well, Frank, Chicago did unfortunately slip down the scale a trifle into 6th place among markets. Before the last regrettable conflagration Chicago had 54,778,000 bushels of space; now that's reduced to 48,428,000 bushels.

Fort William-Port Arthur tops the list with almost 100,000,000 bushels, followed by Minneapolis with 93,635,050, Kansas City with 60,032,000, Buffalo with 51,428,000, Duluth with 50,875,000, then Chicago with 48,428,000, Omaha with 26,710,000, Milwaukee with 25,920,000, Vancouver with 18,587,000, Montreal with 16,537,000, Fort Worth with 15,575,000, St. Louis with 15,124,500, Midland (Ont.) with 13,750,000, Baltimore with 12,750,000, Wichita with 12,292,000, and St. Joseph with 10,452,000 bushels.

"I sympathize with Bill Gassler deeply," Frank writes. "Am sorry for the victims' families. I had the same experience and feel keenly for them. We, too, lost men at Newport News who were stranded atop the tanks with no means of escape. It's a shock that takes a long time to throw off."

a spell of fear and doubt before the elements were subdued. Smouldering smoke bespoke the fire's beligerent spirit for days to follow.

Blast in Wood House

The only eye witness at the very source of the explosion was figuratively whisked from the spot on the lashing tongue of the blast—too badly burned to ever point a convicting finger. From the confusion of conflicting reports, however,

it seems fairly well established that the legs had only been running six minutes—and were not in operation at the time. Two truckloads of corn had been unloaded and it is deemed probable that the conveyor belt was still in motion. First reports had it that Superintendent Gassler, ever a top-notch housekeeper, was having the basement of the 1,000,000 bushel concrete annex swept and that the belt therein was in operation.

With few exceptions, however, all seem to agree that the blast originated in the 800,000 bushel Calumet "A" unit, a wood house. From there the fire roared away, literally blistering the hide off the concrete tanks adjacent to the north, jumping nearly 200 feet eastward to enlist the thirsty encouragement of the 1,000,000 bushel Calumet "B" unit, and then another 100 feet to envelope the 1,250,000 bushel Calumet "C" house.

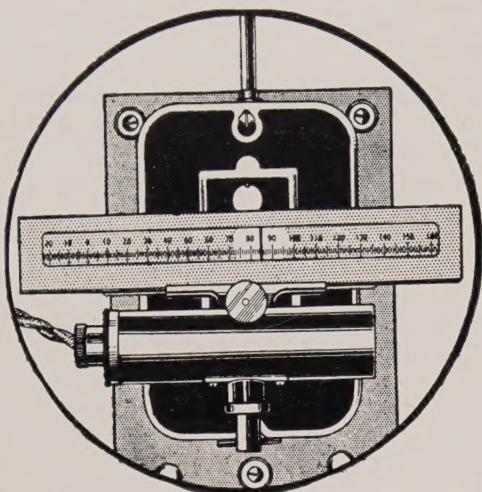
Two Norris Grain Company plants across the 110 foot slip, namely Norris "A" of 700,000 bushels and Norris "B" of 1,500,000 bushels, joined to make 6,250,000 bushels ablaze at one time, — doubtless the hottest blaze ever recorded in elevator annals. So hot was this roaring inferno, in fact, that it kept observers a good 500 yards distant and evaporated many of the streams from the hardy fire hoses before they could do much good.

Inspected Two Days Previously

Inspectors had scoured the plant from top to bottom two days prior to the blast and, as usual, had issued a perfect "bill of health."

Joseph A. Schmitz, Chief Weighmaster of the Chicago Board of Trade, in addressing the Chicago District Chapter of the Elevator Superintendents' Association admonished all plant heads to instigate "self-inspection" on the parts of employees. "They know what is wrong," he asserted. "They know who smokes. They know conditions favorable for an explosion.

"We've had explosions at every bracket of the thermometer, at every baro-



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metric pressure, at every degree of humidity, at all intensities of sunshine, and all up and down the scale of wind velocity. What that all adds up to is anyone's guess. One fact is positive, however, and that is that the morale of the entire personnel of all grain and processing plants is adversely affected."

Eye witness Mark Kaplan of Lavelle Rubber Company dramatically told how the sides of Calumet "A" first blew out and crumbled almost like cardboard, how the plant burned as though filled with nothing but gasoline.

Mr. Kaplan believes that it was forty minutes before the "B" house — 192 feet away — caught fire. After it did ignite the firemen's streams lacked ten feet of reaching the "B" house.

By this time the flames were licking the skies a good 200 to 350 feet, another eye witness stated. "Fire brands ignited the Star Grain Company's (General Mills) Elevator some two blocks away," testified Mr. Nixon "Redler" Elmer, Stephens-Adamson Mfg. Company, who helped put out the latter blaze.

"We had bonfires to keep warm on the scale floor of an incompleter elevator in the late fall of 1922 in Fort William," Mr. H. G. Onstad added, "and the dust was all over, — b-u-t we had no explosion. What's the answer?"

Clean Daily While Idle!

"Clean your plant **every** day with the equipment standing **idle**," Norman Broadway of Collingwood (Ont.) Terminals, Ltd., urged — despite such experiences of the past. "Since dust is kept IN the grain we've had serious explosions whereas we didn't before."

"Our houses are cleaner now than in the old days," according to Joe Schmitz. "The B & O even went so far as to spend an extra \$50,000 to trowel inside walls smooth — and look what happened."

"At the Port Colbourne house a leg chocked, the belt burned in two, fell down into a well, the burning belt ignited the dust and an explosion burst forth on the underside of the tanks," Mr. Schmitz continued.

"Yes, and there was a chunk of concrete weighing ten tons thrown over a half-mile away," cited Mr. Onstad. "Before we tried to prevent explosions, we had fewer of them."

Too Much Time Sweeping

"We spend too much time sweeping!" thought Emil Buelens of the Glidden Company. "Prevent dust escapement at the source and you remove two hazards. We try to educate each worker to be an inspector — and it works out splendidly."

"The Murray at Kansas City and the Northwestern at Chicago blew up when

they were not even operating," Joe Schmitz recalled.

"Hexane vapor caused our explosion," proffered Emil Buelens, "—not dust." "The plant was kept spotlessly clean," added Gliddens' Mr. Ambler, "and was even repainted inside and out just prior to the blast to prevent dust from lodging any place."

Leaf from Coal Mines' Book

"Placing a non-explosive dust, such as 200 mesh rock (limestone) dust, on all ledges is the way the coal mines snuffed out coal dust explosions that were so common with them before this practice was instituted." Mr. Elmer went on to explain that in addition to the limestone dust packed on the ledges and all other protrusions, large thin-paper bags thereof are hung at intervals commensurate with the surrounding area, and that when an explosion occurred today these bags would naturally just give way and dump their contents into the atmosphere — which smothered the blast quickly, quietly and effectively.

"Since a tremendous vacuum is created by an explosion," Mr. G. E. Laugen of Archer-Daniels-Midland said, "this method suggested by Mr. Elmer ought to work out to perfection."

Ten Blasts Prevented

"Regardless of opinions to the contrary we definitely **KNOW** that good housekeeping has prevented about ten major explosions with us," offered Chapter President C. J. Alger, Corn Products Refining Company.

"A cardinal rule with us is **NEVER** run equipment empty! That is bad business under any circumstances. When legs are running full they seem to stifle any explosion, B-U-T when they are running empty the proportion of dust and air seems invariably right for a 'blow.'"

"We had a crow bar fall across a switch box. It shorted and sparks shot in every direction in the open room — yet nothing happened. Of course the conditions which permitted this instance to happen have long since been corrected, — but none of us know when such an occurrence will be the source of a devastating blast."

"We feel that bucket elevators and wooden leg casings cause more explosions than any other source because conveyors and buckets throw dust into suspension and flashes touch off the mixture. Also watch out for crowding legs, and speeding up legs, and static," he warned.

The discussion turned to the pros and cons of cigarettes, gases and foreign metallic substances as the sources of ignition and tests conducted thereon.

Foreign Metallic Substances

Mr. Broadway related the details of their explosion in Collingwood and how grain was being drawn off to test for temperature. (What! No Zeleny?) A spark, generally accredited to some foreign metallic substances, ignited the dust and blew out a section of the gallery 25 x 8 — in spite of the fact that the house was spotlessly clean.

"It takes a temperature of at least 1200 F degrees to ignite starch dust," Mr. Alger replied. "Now the heat from a single spark creating 1200 degrees of temperature is immediately diffused in every direction, so obviously a series of 'red-hot' sparks is necessary before the atmospheric dust — which is of room temperature — is brought up to the necessary flash point before it will ignite and explode. Starch dust takes less heat to explode than the dusts from the various grains, so you can see the fallacy of the theory that a single spark can do the work. (Dr. Price has the scale of temperatures at which different commodities will go up.) You can take a hammer and create spark after spark in a dusty atmosphere and nothing will happen. A hot coil or electrical arc, hot bearing, or flame are necessary before an explosion can occur.

"Some of the plants the Chicago Chapter has visited during the past eight months are a perfect set-up for explosions," Mr. Alger observed. "My advice is to remove or hinge the walls on the conveyor galleries between building units. This is also a good recipe to follow in all confined sections of any plant handling explosive grains and grain by-products.

Tank for Basement Vent

"Another good move, particularly in the older plants where there is insufficient venting area in the basement, is to use one of the tanks — like Cargill did at Omaha — for an open-topped chimney to the outside. This acts to suck all stagnant air and dust right up and out. Proper ventilation and plenty of it is really mandatory for preventing blasts.

"ALL GRINDING UNITS SHOULD BE IN DETACHED STRUCTURES!" continued Mr. Alger in opening the realm of drafts and how explosions invariably follow them and take every obstacle before them — regardless of open windows

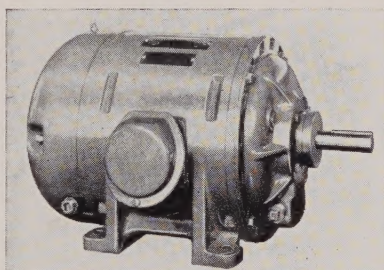
to the right or left. "Scored window glass gives ventilation at 100 pounds pressure," he said, "whereas otherwise it takes 300 pounds pressure to knock out a piece of single strength glass.

"Light bulbs in bins have caused a good many blow-ups, however this type of extension light is now taboo. I implore those of you who have not equipped yourselves with Underwriters' approved bin inspection lamps to do so throughout post haste!

"Another important point to prepare for is the escape of your men if they should be trapped and are unable to get to the ground via the staircase, manlift

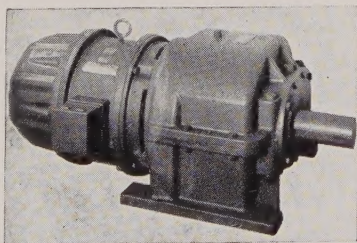
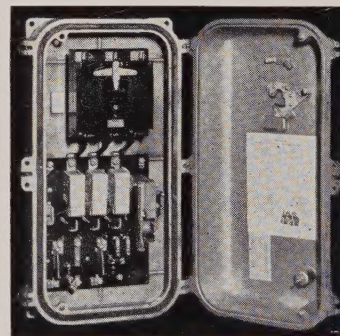
or elevator. Four lost their lives at the Newport News blast and sizzled to death right before the eyes of helpless onlookers. Two men lost their lives similarly in this last blow-up. As the flames crept up to them, one man ran around to the other side of the elevator screaming for help and, peering down, leaped to the ground. Then the roof caved in and the other man fell into this volcanic inferno. Neither body was found. The toll of lives lost because there was no suitable means of escape other than the workhouse stairway is simply appalling. The workhouse stairwell is usually the first to catch fire so the importance of

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auxiliary escapes at every remote location is obvious.

"Minimizing dust at every transfer point with modern collection methods is naturally the first point of attack. Delapidated, old-fashioned collection systems are of little more benefit than a run-down old vacuum cleaner is on the rugs in your homes. New engineering developments make the dust collection system of today as much of a necessity as windows and doors.

"Of course it goes without saying that the electrical equipment throughout MUST meet the specifications of the National Fire Protection Association to NOT contribute a big share towards prospective blow-ups."

Empty Bin Explodes

Chet Klaus of Zeleny Thermometer Systems, recalled having been on the ground when the Enid (Okla.) explosion occurred a while back. "The tripper was spotted to an empty bin and grain was just being spouted in. Before the first kernels had an opportunity to reach bottom the tank blew. To me that suggests flammable gas and a metallic spark. What else could it be?

"At Buffalo one of the bins was three-quarters full. Nothing was being drawn out nor was more grain being poured in. The bins were covered but just the same this one blew up. Here there were two flashes, — a blue one and a white one. However I've witnessed dust explosions in many other locations and believe I've seen all colors on the primary and secondary flash. At the Calumet explosion there was but one blast," according to all testimony.

"At the Santa Fe Elevator in Chicago," related Emil Buelens, "the house was running idle while the scales were being tested. The answer seems to be to NEVER run idle!"

"There seems to be some discrepancy in the number of explosions everyone feels occur in a case like the Calumet or Santa Fe catastrophies, — or any of the other seven doing \$20,000,000 damage here the past eighteen years," Joe Schmitz opined. "I think there are thousands of them in rapid series based on the Northwestern blow-up when the 100 to 200 ton marine leg was blown away out into the water. This unfortunate occurrence originated in the drier.

"In the case of the Calumet, the explosion knocked down a group of railroad workers 200 yards away and took off the massive roof as though it were

Combatting Combustible Material

In the last score or more of years chemistry has become an important, even dominating, influence in the field of lessening the danger of fires. During the last twenty-five years a considerable variety of devices have been originated and have come into quite general use, utilizing the principle of smothering a fire at the moment of its origin either with or without the simultaneous effect of water.

The action of chemical fire extinguishers is very powerful, under certain conditions really astounding, so that they have become popular and will be found in practically every building. This popularity is the result of their dependability in the case of smaller fires.

Use It — But Quickly!

The chemical fire extinguisher, however, must be immediately available at made of paper. It appears to me that to do this the explosions must resemble machine guns in frequency."

Takes Up Belt Monthly

"If we could only find some way of keeping 12% of carbon dioxide gas in the grain at all times — perhaps through using a totally enclosed system as does Northwestern Yeast — we could guarantee ourselves that we'd never have an explosion," Mr. Alger pointed out. "One thing we do and feel is very important is to take up the bucket elevator belts every thirty days and in doing so to watch out carefully for alignment."

"You can't shroud an idler and hold the belt in alignment if it is out," warned Mr. Onstad in conclusion.

Dr. Price or Dr. Brown from the USDA, who have been investigating the blow-up, are to be invited to address the next meeting of the Chicago Chapter on this same subject, when moving pictures, also available to other of the Society's Chapters, will be shown by Chet Klaus of the Zeleny Thermometer Company.

Dr. Price, who was in Chicago attending two meetings simultaneously — the Midwest Safety Congress and the NFPA — announced that tests recently concluded show that about two pounds of dust suspended in 1,000 cubic feet of air is the ideal proportions for a blow-up.

Of all active members of the Superintendents' Society this \$4,000,000 disaster should least have befallen Bill Gassler, is the unanimous opinion of all those who know him. An immaculate housekeeper and a top-notch Super is the enviable reputation he will always enjoy.

the right moment and it must be applied at that moment. Because, after a fire has once gained headway and becomes a conflagration, after the flames have come to cover a large extent, and especially after temperatures of 1800 to 2700 degrees have been reached, then all the fire extinguishers in the world are of no use. Streams of water from fire hose will not always be effective under these conditions, either, and the fire will stop only when there is nothing left to burn. This condition has happened often enough. When a fire spreads rapidly, so that those present cannot get the fire extinguishers to work quickly enough, the chemical extinguishers are of no avail.

The New Fire Fighting

Hence it seems desirable to attain a more secure and permanent safety from fire by preventing the origin and spread of fire, if possible, by making the inflammable objects flame proof, treating them with a substance that will keep them from burning. There is such a substance now available and on the market. This chemical is used in the form of solutions and is applied to combustible materials by means of spraying, brushing, or immersing.

There is another product also on the market which comes well recommended for lumber and structural timbers. It comes in the form of a coating that may be applied with an ordinary paint brush. It works the same as paint; it serves a two fold purpose in that it is an excellent primer for paints and sets up, in combustible wood, a powerful barrier against flame; it has good covering value and the cost is not considered excessive.

From Walls to Clothes

Either one or both of these products may be used on combustible partitions, shafts, walls and stairways. The main storage rooms for lubricating oils and grease offers a place for uses of these materials. Buildings in which sacks, sacked grain or screenings, or other combustible merchandise, materials, machinery and supplies, are placed should invite its use to a very good advantage.

This chemical solution may be used for periodical spraying at points in elevator structures where frequent collections of grain dust appear, or at any other point where it is desired to minimize fire hazards in these structures. It is also very important to consider this treatment for the worker's clothing such as jumpers, coveralls, etc. as an aid to their safety. This method is now employed by some of the oil refineries who have arranged with laundry concerns to do this special treating for them along with the cleaning and it has been found quite satisfactory.

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GOOD HOUSEKEEPING *and* *its relation to* THE PREVENTION OF DUST EXPLOSIONS *and* FIRES

By CHESTER J. ALGER

Corn Products Refining Company, Chicago

(Before Milwaukee Convention)

During the past decade — with a few exceptions — minor dust explosions have occurred in elevators, factories and mills where the extent of damage caused by the dust explosion was very limited. In many cases there was no loss of life. The record for this period compared with the previous decade shows a substantial improvement and undoubtedly the maintaining of good housekeeping conditions has been an important factor therein. Where cleanliness exists — should a minor explosion occur—it is impossible for a cloud of dust to be thrown into suspension, the ignition of which would cause a major catastrophe.



We are at the present time, however, facing the matter of educating supervisors and employees—who have been engaged a comparatively short time in industries where dust explosion hazards exist — on the importance of good housekeeping conditions. Just what are the contributing factors that cause dust explosions? With this question in mind, some of the old-timers will re-read some of the essential facts with which they are fully acquainted. But to continue activities to prevent dust explosions, we must remember there is a constant and everlasting demand for further education.

Proper Sweeping Requires Education

To maintain good housekeeping conditions, the first step necessary is the education of the supervisory force up to a new standard of housekeeping. They in turn must train the employees, such as sweepers, etc., as to the proper method of sweeping — by actually showing them how. In other words, an employee should be trained as to the proper method of sweeping in the same degree in which he is trained in other functions of his job. If this is done in all departments where dust hazard exists and frequent inspections made and a report of conditions found turned over to the management, you will soon have in operation a satisfactory and efficient method of control.

It might be well to emphasize that the dust that contributes to the severity of an explosion is the dust allowed to accumulate on machinery, overhead piping, equipment, etc., located above the floor where the pressure or vibration set up by the explosion causes the dust to be thrown into suspension.

Vacuum Cleaning Successful

There are numerous methods of cleaning up dust. At the present time vacuum dust collecting equipment is being successfully used in many plants. Where such equipment is not in service, the general practice of sweeping down beginning at the top should be observed. Some of the dust will circulate through the air and accumulate on the overhead equipment, but after each sweeping there is a marked decrease in the quantity in such locations.

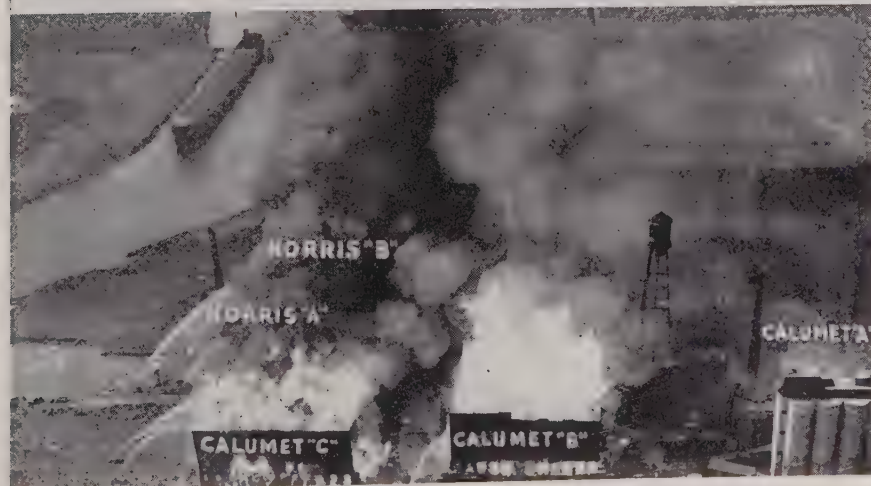
A slogan "No Dust — No Explosion" has been quite frequently used. The first essential to prevent accumulations of dust is not to make it. This develops the necessity of having all equipment conveying materials dust tight. This, plus the creation of minus pressures with the use of dust collecting systems and connections to various items of equipment, such as bins, bucket elevators, reels, etc., makes it possible for an inspection without a dust cloud being dispersed into the room or department.

Housekeeping Removes 70% of Danger

In conducting dust explosion prevention work it is my candid opinion that the enforcement of good housekeeping conditions removes about 70% of the hazard which is always present where good housekeeping is not in force.

It is my hope that this brief message, having to do with housekeeping conditions where a dust explosion hazard exists, will stimulate those in attendance at this convention so that when you return to your respective plants this important subject — from the standpoint of life and property damage — will receive attention to the degree to which it is entitled. Because, after all, I know each one in attendance realizes the importance of this subject.

May I conclude by again repeating the slogan — "No Dust — No Explosion."



Disaster's Height -- Thunderous blasts -- Mountains of smoke -- Infernos of fiery destruction and flame ;:- Hell on earth.

So Join Your Association

It is natural to wonder at change. Natural, at least, for an outsider who does not realize that business is a process of change, with a steady current of new ideas being digested, and new formulas coming into clash with someone's pet idea.

Business, as well as people, tries to keep up with the Jones'. Always there is something ahead.

So, day by day, our business houses are outwardly orderly and quiet, but internally are seething with ideas and problems. Every day every employee gains a little ground or loses a little favor. Every day some long-established brand is shrinking a little in popularity and some new item is moving ahead.

The duty of the man at the top is to recognize these trends and to change in time.

When you see an Elevator where the Super has been at the top for many years, you know he is a man who has grown with the times and has adapted himself to each era.

He is **ALIVE**.



WITHOUT INDUSTRY

Picture if you can how desolate our city would be without its Industrial Activity. No busy clank of presses nor whirl of machinery; no smoke rolling skyward from our chimneys.

Yet that would be but half the drab picture, for without our Industries our city could not carry on its other activities. Stores and Banks would close their doors for want of customers. Schools, parks, hospitals, libraries could not operate without the funds business and industry pours into the public coffers, through taxation. Our citizens would be compelled to abandon their homes and seek a livelihood elsewhere.

That is why it pays all of us to do everything within our power to help preserve the prosperity of these vital institutions in our community—to keep our working conditions so favorable and our reputation for fairness and cooperation so unblemished that industries will continue to thrive and expand.

Harmony in our relations with one another is the basis for prosperity and progress. Help promote good will toward our industries and you help promote the best interests of all.

What Price



The shoes you wear—they're not **the** kind one can buy for a dollar or two—**thin** as paper—the kind that **soak** up water like a sponge and **crack** in EVERY direction within a week—NOR the kind that last only a few months.

NO! You select a certain shoe to best answer your purpose. Yours are **more expensive** than the "paper mache" variety—they're **stable, substantial, durable**—they're **water-tight, flexible, comfortable**—and they'll KEEP their satisfying trim **appearance** for years.

You buy JUST the shoes you want—and you expect certain satisfaction—And you GET it.

BEN J. MANY CO.

Shoes!

BUT, DO YOU apply the same shrewd principles when you buy a weather-proofing job for your buildings?

Do you first consider that your buildings, particularly your grain bins, develop cracks when they are loaded? Do you buy a weather-proofing job that will permit of this cracking and still be water-tight? Do you select a proven method that gives prolonged durability, that water-tightness, and that flexibility necessary to protect against leakage from each new movement of your tanks?

To obtain positive results you must first definitely know what conditions **MUST** be met and **THEN** buy a job that will **SQUARELY** meet these conditions. You will never be satisfied with less than the best.

When you buy a pair of shoes, do you accept the advice of your experienced shoe salesman? Then why not use the same principles and permit us to give you the benefit of our years of experience; have us look over your properties and make complete recommendations without expense to you.

Why put the matter off longer? Why not phone or wire us today?

PORATION

**30 N. LASALLE ST.
CHICAGO, ILLINOIS**

Safety Contest Efforts

By OSCAR OLSEN, Chairman, and
CLARENCE TURNING, Director

We have often been told that continuous safety efforts will bring results and we firmly believe that such is the case. In order to prepare a synopsis of



OSCAR OLSEN,
Superintendents'
Society Safety Com-
mittee Chairman

plans which are now in use, and which are proving effective, we would greatly appreciate a note from you, outlining the safety program which you are now carrying on, as some of the things you are doing effectively may be new to other Superintendents and they may wish to use part of your program. So please let us hear from you, for the good of the cause.

New Manual

Work is now under way on our proposed "Safety Manual" and we would appreciate your help in preparing this booklet. We are especially anxious to get first hand information on accidents occurring in your plants which are a little out of the ordinary. In writing us on this subject please describe the accident fully, tell us what you consider was the cause of the accident, and also inform us as to the steps taken to prevent a repetition.

Poster Ideas

Ideas are also desired for safety posters which we can use during the coming year. There are many hazards peculiar to our industry which have not been covered by safety posters. Photographs showing conditions which can be corrected will be very helpful.

Enter Today!

Last but not least, **don't** put off entering the safety contest. We are anxious to have a large registration as soon as possible, and we want you with us. As per data recently sent you, the fee is \$5.00 for the year beginning March 1, 1939 — for each unit entered.

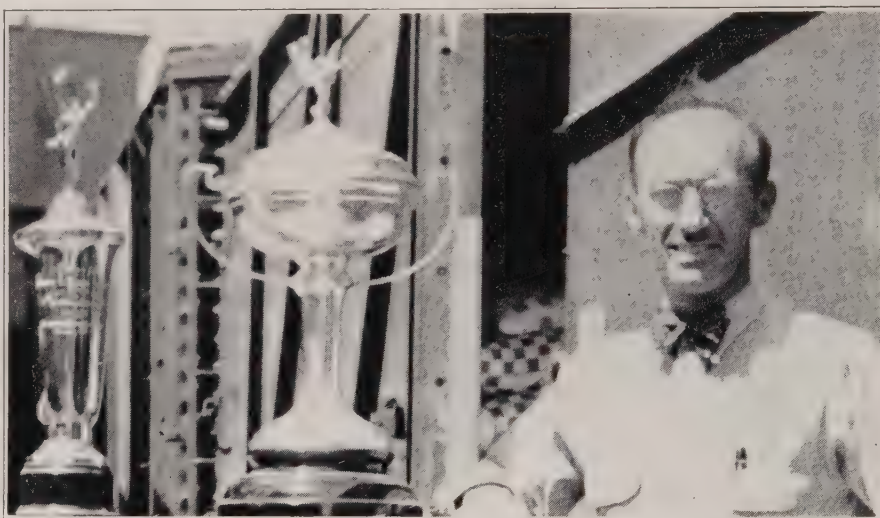
One In Every Plant

The old proverb says "History repeats itself." But accidents don't repeat if we

make an earnest effort to ascertain the true causes of each accident and then take active measures to overcome those causes!

However, in nearly every plant there are some "accident repeaters," that is, one or more persons who seem to get hurt oftener than necessary. They may have one or two minor mishaps during the year and perhaps one or more lost time accidents. We have in mind one dock prop-

button showing a picture of a dog house with the wording "I'm in the Dog House." These buttons are given to foremen and they wear them until they see someone doing something unsafe. They then pass the button on to the man and he has to wear it until he can get rid of it in the same manner. Every change of ownership is reported so that the transfers and reasons for transfer are checked. (From Purina Safety News).



W. H. Kamp, Ralston-Purina Company, Kansas City Chapter President, won first place awards in both the Class A and Class B contests this year for 457,325 and 109,460 man-hours without a mishap. Congratulations, and may the good work continue!
Harry B. Olson, Chicago, donated the Class B first award on the left, and the H. H. Robertson Company, Pittsburgh, gave the three year cup on the right for Class A, first award.

erty where they had three lost time accidents in two years and one man had them all.

Investigate Closely

It is well to investigate all accidents, but when a man has a series of accidents it may also be well to check up on his physical condition, his unsafe practices, and everything about him not only to eliminate further mishaps but also to make certain that he is not handicapped in some way which may cause a really serious accident at some future time.

I'm In The Dog House

The Fort Worth plant of the Ralston-Purina Company is now using a celluloid

What To Do In Event Of An Accident

Do the men in your plant know what to do in case of an accident? Do they know what Doctor to call and what to tell the Doctor, or where to get an ambulance? The following instructions are posted by one company:

If A Doctor Is Needed

Call Doctor (Name of Doctor) Phone Number..... GIVE THE FOLLOWING INFORMATION OVER THE PHONE: This is (Your name) at (Name or company). There has been an injury here. The injured was burned, or has a broken leg, or has a head injury, or an electric shock, and is unconscious or conscious. (Describe injury.)

If An Ambulance Is Needed

In case of serious injury, Call Hospital.....Phone Number..... TELL THE FOLLOWING INFORMATION: This is (Your name) Send an ambulance to (Name of Company). An employee has been injured. (Describe injury).

Then meet the ambulance at the gate and show them where the injured is. Also call the doctor as suggested above and tell him that you are sending the injured man to the hospital.

IF PATIENTS ARE SENT OR TAKEN TO A DOCTOR, the address is: (Give name and address of the doctor, and state specifically what his office hours are). (Frazier Patterson, W. C. Bradley Co.)

Pay Roll Inserts

The suggestion was recently made by one of the Superintendents that we furnish safety reminders which can be put into pay roll envelopes, or fastened to the pay check.

If we find that there is some interest among the Superintendents entering the Safety Contest in material of this kind we will buy a supply of these pay-roll inserts from the National Safety Council and make one distribution to all the employees of these plants.

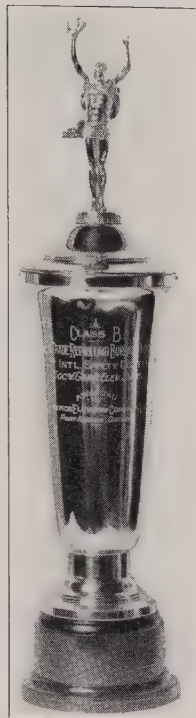
If you are interested in this plan please let us know, as we would not care to buy them unless they would be used.

Certificates To Be Awarded

As suggested at the last convention we will have some certificates printed in the near future carrying the proper wording to cover plants entering safety contests

SHORTY SEZ:

Many a man who
takes a chance
wishes he could
put it back



CLASS B SECOND PRIZE

Frank McLean of the Superior Elevator Company, Ltd., Port Arthur, won this swell one-gallon cup for placing second in the Class B Safety Contest. Class B winners get to keep their awards, whereas Class A winners must compete again for them.

The Seed Trade Reporting Bureau, Chicago, donated the grand trophy.

and going through the period of the contest without a lost time accident.

These certificates will be furnished the Superintendents who had a clear record in the last contest, but were not cup winners. The same will be done at the end of the Third Safety Contest.

Safety Material For Chapter Meetings

It may be that some of the Chapter Safety Committees may hesitate to arrange for a safety talk at their various meetings due to lack of necessary material for preparation of the talk. If such is the case please let us know a few weeks ahead and we are quite certain that we can give you an outline that would be helpful to your committee, or the speaker they select (if he desires some help), as we have quite an extensive file on safety subjects. Our files also include considerable material on fire prevention, first aid and kindred subjects.

Odd Accidents

The rung on a ladder broke as the elevator foreman of a Michigan plant was descending after adjusting some machinery. The foreman fell 40 feet to the ground, fracturing four ribs and bruising legs and arms.

Replacing a sprocket chain, an Illinois elevator mechanic's overall legs caught in

the gears. He suffered a fractured leg and lacerations of the knee.

Grasping a step-board that gave away as they were climbing out of a grain bin, a Kansas and a Michigan elevator helper fell to the bottom of the respective tanks, suffering fracture and dislocation of the lumbar vertebra and lacerations of the scalp.

Dressing Belt—Not Blonde

A Missouri elevatorman caught his arm between the belt and the pulley as he was dressing the belt, fracturing both bones of left forearm.

The brake on the rope-type manlift in one of the smaller Illinois terminals failed to work. The employee descending after closing the windows on the upper floors lost his balance, fell, and suffered fractures of leg, heel, and molar bone.

Standing on top of a table to reach gears for greasing, an Oklahoma elevatorman caught his hand in the unguarded gears when the table tipped or he slipped. Loss at middle phalanx of one finger and laceration of others resulted.

Leaves Power Turned On

Unexpectedly the power went off in a Minnesota plant. A short time later it came on again just as unexpectedly. One of the elevatormen was removing the clogged grain and neglected to turn off the power. Result: severe lacerations of left hand.

An Indiana elevator employee was reaching up to turn on the light. His coat sleeve caught in some unguarded gears and he suffered fracture and lacerations of the arm.

CLASS A SECOND PRIZE

Here's the grand trophy won by Fred Sibbald of the Grand Trunk Pacific Elevator Company, Ltd., Fort William, for 108,162 man-hours without a single scratch.

Appraisal Service Company of Minneapolis, donated the beautiful award.



Aw, Gee, Mister

"Aw, gee, mister, I just can't help crying.

"You see, my Daddy was so big and so brave and so strong. He was always laughing and talking about how wonderful it was going to be when I grew up to be a big lady. He'd hold me in his lap when he came from work at night and say, 'Well, my little lady, Mother tells me that you mended your dolly's dress today in first class style. That's great! Someday you will be taking care of a fine big home, and your old Dad confesses he envies the lucky man who marries you!'

"And then he'd roar his great hearty laugh and hold me so tenderly in his hard-muscle arms. I'd just snuggle down in his protection and peep over at Mother's smiling face. She was always so happy and proud when Daddy held me like that each evening. It made me feel just like everything in the whole wide world was just fine and could never be anything else but the wonderful way it was now.

Laughs At New Records

"And after the evening meal was over, Daddy would tell Mother and me great stories of what had happened during the day. He'd tell about the railroad engine running off the track when it was putting cars into the unloading shed at the Elevator. He'd laugh about his Elevator setting a new record that day in loading out a boat. He'd tell us all about the men he worked with; his bosses and the other men and about their families and what they were all doing. Gee, it seemed just like a big family. And Daddy was so happy about it all that it made Mother and me hug ourselves in joy to see the quick, light smile play over his eager face while he talked.

"And lots of nights when I was sick with a cold or something, I remember that Daddy would come into my room several times during the night to see if I was all right. And his big hands would run over my forehead just as lightly as a thistle-down and then tuck in the covers just a wee bit tighter. And I would lie real still and pretend I was asleep because I knew Daddy had worked awfully hard all that day and that he had another hard day's work tomorrow and that he needed his rest. But no matter how often he had gotten up the night before, he was always cheery and smiling the next morning and

asking me how his little lady had slept the night before.

"And then he would sweep me up in his arms, kiss me and say, 'Well, little lady, take care of Mother today and don't let her work too hard. I'll be home at the regular time!' And off to work he would go—so strong, so cheerful, so alive!

"When his whistle had died away in the distance, Mother and I would play that the house was a castle and that we were beautiful princesses awaiting the coming of a white-plumed knight. And all that day we would make each of our efforts tend toward the homecoming of our gallant knight.

"Oh, gee, mister, I just can't help crying . . .

Comes Home for Last Time

"Last night . . . our knight . . . came home. For the last time.

"He didn't stride joyously in on his own sturdy legs—he was carried in. Four big men carried him in on a stretcher and following them came a doctor and a nurse. They put our Daddy in the front bedroom . . . and then the big men from the Elevator stood around with awful looks on their faces. It was the first time I had ever seen grown men cry. . . . The nurse was holding a bottle under Mother's nose and the doctor was murmuring words to her about that everything had been done that was humanly possible and that those who live must carry on and not give up. . . . Mother wasn't crying. She just stared straight ahead with a terrible far away look in her eyes and her hand would occasionally brush an imaginary hair off her forehead.

"I tried to run into the front bedroom but one of the Elevator men picked me up in his arms and held me gently. I remember that he felt just like Daddy. . . . Then Mother got up and took me from the man. . . . She thanked the stranger and said that she would be grateful if they went ahead and made the arrangements. Then she took me upstairs and held me tightly for a long while. . . . Finally she had me lie down in my bed and said that she would be back after while.

"I waited a long, long time and then tiptoed downstairs. The nurse and two strangers were sitting in the parlor but I couldn't see Mother. . . . I stole into the front bedroom and there she was kneeling by the bed and holding Daddy's hand. I went up and stood beside her. She put one arm around me and kind of sobbed

once. Then she said, 'Darling, your Daddy is going on a long trip and it will be quite a while before we see him again. . . . He is asleep now so don't make any noise. . . . From now until we see him again we must be the ladies he likes. . . . Yes, you may kiss him, but kiss him ever so lightly so that you will not disturb his sleep.'

"I bent over and pressed my lips against Daddy's brow. It gave me a shock! Daddy who had always been so warm, so vital, so loving, now felt like something I can't describe. It was Daddy—and yet it wasn't. His skin was clammy and cold. His face was like the statues in the museum. I felt frightened and threw my arms around Mother's neck. As she held me close, I could hear the words of the strangers in the parlor as they talked in low voices:

Down Bin to Rescue

'Yes, it was a pity. Ed went down that bin to rescue those two trapped men. He got them out but . . . he lost his life doing so.'

"That gas works fast. It is a wonder Ed had strength enough to get those two unconscious men out before he went under.'

"If he hadn't been so unselfish and tied them to the rope from above before he passed out, they wouldn't be alive today.'

"Then the nurse spoke sharply. 'You men,' she sniffed, 'you pride yourselves on business records and yet you destroy the finest among you by your faulty safety precautions. . . . I don't know anything about grain elevators but I do know that a human life is worth saving at any cost. . . . Take this case, if proper precautions had been taken there would be no reason for us going through this grisly business of making arrangements for an undertaker. Why, oh why, don't you men get safety-conscious and do away with tragedies such as this? . . . Remember, it can happen in your home just as it has happened here!'

"And then I knew. I knew my gallant white-plumed knight would whistle no more on the way home from work. I knew that no more would I feel the unutterable delight of being swept up in my Daddy's arms. I knew that all the safety and security and reality of my life was at an end. My Daddy was gone!

"Oh, gee, mister, I just can't help crying!"

Enter the Superintendents' Society 1939 Safety Contest Today!

What Is It?



By W. J. Cameron,

Managing Director, National Safety Council



Those of us who have been closely associated with the Safety Movement for many years feel that we know the meaning of the word safety. But when we attempt to condense the meaning into a few words that can be remembered easily, we run into difficulties.

I have written quite a few thousand words interpreting safety, yet when one of our members recently wrote asking me to define safety I was perplexed. Turning to the dictionary I found:

Safety: The state or condition of being safe. (1) Freedom from danger or risk. (2) Freedom from injury. (3) Harmlessness.

The dictionary didn't prove to be of much help. The Safety Movement has given safety a meaning far beyond the lexicographer's definition. It is no longer a passive thing. Mere freedom from danger is not safety as we understand it. Safety achieved at the cost of stagnation of human activity is quite impracticable. If safety interferes with progress, safety will go into the discard.

Accidents didn't really begin to attract attention until man harnessed power to industry and transportation. Then people blamed them on the sacrilegious efforts of man in making use of these strange and formidable forces.

Early steam boilers were notoriously unsafe. A safety valve was soon found indispensable, but many operators tied them down—sometimes with disastrous results. Flywheels, belts and gears were exposed, ready to trap the unwary.

In the early day of railroading trains were manned by hardy individuals who found satisfaction in the risks they took. And the history of railroading in the past century was marked by frequent and disastrous wrecks. In these days when a steel coach is considered just about the safest place on earth, it is astonishing to note how far railroad safety has traveled.

Safety, if it meant no more than the dictionary definition, would have limited man to the hand loom and the stage coach. Instead it has been a partner

in progress, although the hazard had to be tragically obvious before the remedy was applied.

Perhaps the earliest example of modern safety work was the boiler inspection service of the insurance companies. This saved many lives and prevented a vast amount of property damage.

Explosions were deadly and costly. They stirred the imagination. Fingers nipped by buzz-saws, however, were all in the day's work.

Not so many years ago we thought of safety chiefly in terms of safeguards—extraneous devices added to machines already in operation. Often they were clumsy contraptions, ridiculed by "practical" men and resented by both workers and management. Unfortunately for the safety movement, a large proportion of the public still thinks of safety in connection with these guards, as a mere appendage to industry instead of an integral part of operation. Not all safety men were able to see the vast scope of their field.

Safety work embraces every element which makes for improved working conditions and many which improve productive efficiency. New developments in metallurgy and machine design which make the worker's equipment more reliable are important aids to safety. Illumination, housekeeping, sanitation, ventilation and other comparatively recent developments in industry all play their part in helping the worker to avoid accident. Industrial health service is an indispensable part of the complete safety program.

Those of us who helped to organize the safety movement on a national scale little realized the extent to which these forces for human welfare would rally under the safety banner. And it is hard to visualize the future expansion of the movement.

In the public safety field, the average citizen thinks of the safety movement in terms of motorcycle policemen, traffic courts and signs and signals. He seldom realizes the earnest study being given to scientific methods of traffic control, the progress of education of both children and adults, nor the efforts being made by psychologists to solve the human enigma in the accident situation. Universal safety can come only through a cooperative, self-disciplined society.

Although safety has eluded our attempts at concise definition, our understanding of it is steadily growing. The man in the shop has accepted it in connection with his employment. The next generation, we hope, will see the extension of its principles to the individual's private life, on the streets and in his home.

EXPLOSION LOSSES REDUCED

Dust explosions, which have caused the loss of many lives and the destruction of property valued at millions of dollars annually, have decreased sharply in the last ten years, chiefly as a result of the work of the Dust Explosion Hazards Committee of the National Fire Protection Association, according to Dr. D. J. Price, principal engineer in charge of the Chemical Engineering Research Division of the Bureau of Chemistry and Soils, USDA, Washington, D. C.

"For the 10-year period, 1919 to 1928 inclusive, the losses from dust explosions in industrial plants amounted approximately to \$18,249,000. For the 10-year period, 1929 to 1938 inclusive, the losses were about \$10,052,785. These figures show a total reduction of over \$8,000,000 during the last decade, or an average annual decrease of more than \$800,000," Dr. Price's report states.

"This is indeed a very encouraging showing, but there are still many urgent problems to handle. New industries are being developed continually and new products are being produced — frequently under conditions which create serious dust explosion and fire hazards. The adoption of new manufacturing processes may introduce new combinations of dusts, gases and solvents, concerning which additional information will be necessary in order to provide against the hazard."

The committee's report, which was presented before the NFPA convention in Chicago for discussion and final adoption, includes new codes of rules, regulations and standards for grain and processing plants intended to reduce these hazards to the minimum. In the course of the report, Dr. Price pointed out that gratifying progress had been made by scientists, manufacturers and other agencies connected with the NFPA (of which the Superintendents' Society is a member).



DUST VS. GASOLINE

Internal combustion stationary and automobile engines operated with the dust of grain and other products of the farms as fuel instead of gasoline, is an achievement prophesied for the near future by Dr. David J. Price. His department has charge of the building and organizing the four million-dollar laboratories in which hundreds of technologists, chemical engineers and other scientists will attempt to discover new markets for farm products. "Germany is already using dust as engine fuel," he states.

USE SALT TABLETS TO PREVENT CRAMPS

By WILLIAM F. SCHAEIDIGER

It has been definitely proven by medical scientists that salt will prevent heat exhaustion and cramps, therefore our Company has installed salt dispensers at each drinking fountain. These tablets contain pure ordinary salt with a little Glucose (Dextrose sugar) and have been found to be the most sanitary and effective manner of dispensing salt in proper amounts.

On a very hot day or while on a very hot job, six tablets taken over a period of eight hours will prevent any possibility of cramps or exhaustion from heat or profuse sweating. Taken one at a time these tablets will cause no ill effects, however, it is best if they are not taken at least half hour before or after meals, as most of us receive sufficient salt in our food to protect us for an hour or so after eating. The tablets may be chewed or taken with a drink of water.

During the summer months we perspire profusely on certain jobs and much salt content necessary to our body is taken out of our system in this manner. Unless we get this salt back into our bodies in the proper amounts we may become seriously ill.

Thousands of these salt tablets are being used today in most plants in this country with the result that serious heat cramps have been reduced to a minimum.



SAFETY GRAM

By WM. F. SCHAEIDIGER

Removal of foreign material from the eyes may cause lost sight.

Such an apparently trivial thing as the way and manner in which a speck of dirt, sand, or cinder is removed from a fellow worker's eye may mean the difference between sight and blindness.

According to reports, hundreds of eyes are lost yearly because of the habit of letting a fellow worker with dirty handkerchiefs and toothpicks remove the foreign objects, which may cause abrasions, cuts, and infection—resulting in partial or total loss of vision. The habit of letting fellow workers do this must never be permitted! That is a job for one well trained to do.

If you get something in your eye, go post haste to the First Aid Room, where you will get immediate treatments by our own Nurse or Doctor. Remember, eyes are too valuable to be "monkeyed" with—as they can only be replaced with glass ones.

"'Tis better to be safe than sorry."

S-I-C-K WHEAT

That "headaches" here again!

Several millers' groups are bemoaning the receipt of "sick" wheat — caused from high moisture at harvest time which in turn causes heating, the death of the germ, and then mustiness.

Sniff hard, brother, sniff hard!



NEW CHEMICAL TEST FOR CORN

A new test which accurately measures the degree of soundness in corn is just announced by the BAE. It is a simple and rapid chemical determination of damage by heating, fermentation, fungi or bacteria.

The degree of deterioration undergone by the fatty oil largely in the highly vulnerable germ of the kernel — has been found from exhaustive tests to be quite a reliable indicator of the percentage of soundness, the federal bureau states. [Articles appearing in "GRAIN" during the past three years have related the practices that some Supers have adopted on "acidity" tests with considerable success and savings.]



CARLOADINGS STEADY

Carloadings of grain and grain products, officially reported weekly by the Association of American Railroads, are holding pleasingly steady in comparison with last year's shipments, a cursory examination of the records reveal.

Grain and grain products were the only item of rail shipment that showed any increase whatsoever in 1938 in comparison with 1937, — the increase being 10% whereas the decrease in all other items totaled 19%.

Duluth and Buffalo particularly have been favored with heavy shipping activities.



CEREAL CONSUMPTION UP

Production of cereal preparations from corn in 1937 aggregated 237,471,000 pounds compared with 184,349,000 pounds in 1935 and 236,983,000 pounds in 1933, according to the Department of Commerce. Most of this consists of corn flakes. One bushel of corn yields about 22 to 25 pounds of corn flakes.



SUPERS' SOCIETY OUT OF RED

"From nearly a \$500 deficit at the end of their fiscal year — March 1st — the Supers' Society showed a credit balance on April 1st of \$112.-98," according to President T. C. Manning, Uhlmann Grain Company, Kansas City, Mo.



ELEVATOR BUCKETS

for every purpose

SCREW CONVEYORS**CALUMET****ELEVATOR BUCKETS**

PRODUCTS

- NU-TYPE FLOUR MILL
- CALUMET
- HAMMOND "DP"
- HAMMOND "OK"
- SALEM
- MINNEAPOLIS "V"
- HEAVY "V"
- BUFFALO
- RIALTO
- STEEL EAR CORN
- STEEL GRAIN
- TIN MILL

Our manufacturing facilities embrace the most modern equipment and machinery for the production of Elevator Buckets in types and sizes to suit every Grain handling and Milling need.

Improved design — wear and breakage resisting construction are noticeable characteristics of all "buckets" of "Calumet" manufacture.

As our bucket department manufactures every type of elevator bucket in general use today, our constant endeavor is to assure maximum capacity, low power requirement, long service, with minimum repair and replacement expense for your bucket elevator.

**STOCKED IN ALL POPULAR SIZES
BY YOUR FAVORITE DEALER
AT ALL GRAIN AND MILLING CENTERS**

Screw Conveyor Corporation

707 HOFFMAN ST. HAMMOND, IND.

SCREW CONVEYORS**CALUMET****ELEVATOR BUCKETS**

TRADE MARK REG.**PRODUCTS****U.S. PAT. OFFICE**

TO KNOW A THING

You Must Experience It

*How can you appreciate the worth
of the Society of Grain Elevator
Superintendents unless you join?*

THE unfortunate soldier, who was the only one out of step in the parade, achieved recognition — *but in the wrong way!* Why not fall in line and join the Society of Grain Elevator Superintendents?

The man who "sat by the side of the road" certainly didn't move ahead. Don't be a squatter! This is the age of progress — and progressive men (the whole 207 of them) have already hopped aboard the big train of the Society and are going on to bigger and better stations!

The one-way trip of Life holds many advantages for those who have "what it takes" to recognize opportunity. And man, oh man, does the Society offer it? "Let's take a look at the record," as one of our politicians so aptly phrases it.

The Society has been and is an undeniable influence in the betterment of existing trade practices. It also fosters every practical innovation. *And its dissemination of knowledge can only be appreciated by those who have attended its meetings and who have been fortunate enough to have received all of its literature!*

So it's up to you, Fellow! Here we are — and where are you? *Join now and keep company with the men who are getting places!!!*



JOIN TODAY

Superintendents — \$10 a Year



SOCIETY OF GRAIN ELEVATOR SUPERINTENDENTS

Board of Trade
CHICAGO, ILLINOIS

LESSER GRAIN BORER?

Much complaint is being expressed in several sections over the perverseness of the lesser grain borer and the ineffectiveness of some fumigants on this species. "The Lesser Grain Borer just simply isn't 'lesser' at all," according to one furious Super in the Southwest.

According to two authorities on the subject, it is not necessary to double the dosage — provided an effective fumigant is used. This gives rise to the thought that if regular dosages of the fumigant you are now using does not do the work, then it's time to look around for a better fumigant. (And we can't resist adding:—how about reading some of our fumigant ads!)

"Insects Infesting Stored Grain and Seeds" is a brand new bulletin (number 340) just released by Dr. Harold H. Shepard of the University of Minnesota Agricultural Experiment Station, St. Paul, and is quite worth while studying.

Attention is also directed to the newly approved report of the Committee on Fumigation Hazards of the NFPA. The work of this committee is later approved by the National Board of Fire Underwriters (your insurance man) and by the American Standards Association — and *then* every operator is bound to comply with its regulations. Objections should be filed through your own association's representative on the NFPA committee. Copies of this report are available from the NFPA, 60 Battery-march Street, Boston.

A SURE RINGER

Gilbert Schenk of Weevil-Cide Corporation, Kansas City, tossed the prize-winning suggestion into the Chapter's hopper when he thought of a competitive inter-plant horse-shoe pitching contest as one of their activities.

While complete details are lacking at the moment, we understand that each elevator and processing plant will comb their staffs through individual competition for the best players to represent them in the inter-plant contest. Word from Minneapolis also indicates that the project will be extended to that Chapter.

TIME FOR ACTION

"This is a time for courageous and discriminate action!

"Opportunity exists for the well-informed today!!

"It is our opinion that business by the end of 1939 will be as good as — perhaps even better than — at any year-end since 1929," to quote no other than Roger Babson.

SUPERS TO PUT ON MEMBERSHIP DRIVE

"We as a Society have had the pleasure in the past of having in attendance at our annual conventions, Mr. Otto F. Bast, President of the Bast Grain Company, Minneapolis, and President of the Grain & Feed Dealers National Association," reads a communique from Second Vice President Percy C. Poulton of N. M. Paterson & Company, Ltd., Fort William. "Mr. Bast believes in group and co-operative effort.

"IN FACT HE MAINTAINS THAT TO ACHIEVE ANYTHING WORTH WHILE IN THE INTEREST OF ALL, DIVISIONS OF THE GRAIN AND PROCESSING TRADE GROUPS MUST BE BOTH STRONG AND REPRESENTATIVE.



NOT KIDDING ANYBODY



Courtesy Chicago Daily News



Society Has Definite Place

"He also believes that our Society has a definite place in the affairs of the industry of the North American continent, and therefore we must follow one of his chief aims, G - R - O - W, B - E - C - O - M - E S - T - R - O - N - G and LEARN to co-operate for the general good of the entire business.



PERCY C. POULTON

Desirable Memberships Invited

"The membership of our Society is not nearly as large as it might be. There are hundreds of grain elevator and processing plant Superintendents connected with large and progressive Companies who have not yet affiliated themselves with our group. To function with peak efficiency we MUST secure their alignment and co-ordination.

Every Member Get a Member

"To further the possibility of securing your willingness to assist us, the Officers of your Society have decided to ask the entire membership to become conscious of our desire to further build up the Society and work real hard during the ensuing year to increase our membership to a point where we become a National Society of such strength as to enable us to MORE successfully further the aims and objects of our body, i.e., the attainment of greater efficiency, and the more economical and less hazardous operation of grain handling and processing plants.

To Offer Prizes

"To spur on the efforts of each individual member of our Society to secure additional members, it has been decided to offer as a prize a free membership for the year 1940-41 to the member of EACH Chapter securing the most new members between now and the next annual convention in Toronto, March 31-April 3. Also, a free membership will be awarded to the most successful member not affiliated with any Chapter who secures the most new members before the convening of our next annual conference.

"As Chairman of the Membership Committee I exhort all members to put forth their best efforts to accomplish a greatly increased membership, and to keep in mind Mr. Bast's firm admonition:—'Group action, to be successful, must be both STRONG AND REPRESENTATIVE!'

"Let's GET-TO-WORK T-O-D-A-Y, boys!"

(C. J. Alger, Corn Products Refining Company, Chicago; Roy Browne, Davis-Noland-Merrill Grain Company, Kansas City; Paul Christensen, Monarch Elevator Company, Minneapolis; Charlie Grossman, Equity Union Co-operative Exchange, Enid, and Charlie Walker, Archer-Daniels-Midland Company, Omaha, are members of the New Membership Committee charged with the responsibility of doubling the Society's membership this year. And we'll bet a couple of dozen subscriptions that they do it—and do it soon.)

A HOT SPOT
Eventually means
A HOT BIN!

Why
TAKE CHANCES

use

Weevil-Cide
The
DEPENDABLE
GRAIN FUMIGANT

AND BE
Sure!

Write for prices or,
better yet, order this
positive protection
TODAY

The
WEEVIL-CIDE
COMPANY
1406 W. 9th street
KANSAS CITY, MO.

FLOOR COMPOUND GROUNDS STATIC

"Hubbellite," the product of the Mellon Institute fostered by the H. H. Robertson Company, Pittsburgh, was originally developed as a waterproofing material. Now it is found that applied to floors it will act as a conductor of static electricity, grounding same. As such, it likewise is non-sparking.

A rubber-fabric compressed on metal recently announced for leg casings — with the rubber-fabric exposed toward to buckets to minimize the possibility of creating a spark through striking by metal objects — is receiving gratifying reception from the readers of "GRAIN," they report.



CLARENCE TURNING TO ICC

Clarence Turning, long Safety Director of the Supers' Society, has accepted a fine position with the Safety Department of the Motor Transport Division of the Interstate Commerce Commission, effective June 1st. He expects to be headquartered in Minneapolis.

The work of the Safety Contest Committee will be continued without interruption both out of Minneapolis and the Secretary's office.

"Good luck, Clarence!"



BANQUET PICTURES

"Those attending the Milwaukee convention wanting banquet pictures are requested to drop me a line," writes Harry Thoms of Stratton Grain Company, 741 N. Milwaukee Street, Milwaukee.



ANY MINUTE NOW



Courtesy Chicago Daily News

At Convention

There were six interesting exhibits for the Superintendents to examine:

Ben J. Many Corporation showed three storage tanks in an extremely realistic manner, one with cracks and spalling, a second with the first application of waterproofing, and a third — the finished job. Samples of the materials used were also on display.

A portable disc-cylinder separator, a mounted disc and a demonstrator to show the working of the disc separator comprised the Hart-Carter Company exhibit.

The Screw Conveyor Corporation also had a very novel exhibit of their buckets and spiral screw conveyors.

The Seed Trade Reporting Bureau exhibited the Steinlite Moisture Tester, Boerner Sampler, Boerner weight per bushel apparatus, trier, docage scale and sieves, as well as a grain tester.

The Falk Corporation gave the Supers a very comprehensive picture of gear reduction units and flexible couplings in their excellent exhibit.



KANSAS CITY ELECTS

Multi-Safety-cup winner, William H. Kamp of Ralston-Purina Company, is the new head of the Kansas City District Chapter of the Supers' Society. Mr. Kamp succeeds Roy Browne of Davis-Noland-Merrill Grain Company. Mr. Kamp won two of the Safety trophies awarded at the Association's Milwaukee convention this year for his fine "no-accident" records.

Peyton Kier of the Southwest Milling Division of Standard Milling Company becomes first vice president, succeeding the widely known Charlie Peterson of Simonds-Shields-Lonsdale Grain Company.

J. L. Brown of Larabee Milling Company is now second vice president,—a newly created post.

Succeeding Mr. Kamp as secretary-treasurer is Claude Darbe of Simonds-Shields-Lonsdale Grain Company.

All new officers will serve for one year.



WE HOPE SO, TOO

"I read 'GRAIN' with pleasure and hope that it can continue to have the support which you deserve and which others think you have earned judging from the substantial list of splendid advertisers."—M. Dwight Bell, Consulting Engineer, Minneapolis.

MOST BACKWARD ON SAFETY?

"The grain elevator industry, with its continuous threat of dust explosions, is one of the most backward on the North American continent from the point of view of Safety work," Oscar W. Olsen stated at the Milwaukee convention of Superintendents.

"The third annual Safety Contest, however, is coming along splendidly with more entrees coming in every week," he reports, "which certainly is encouraging to the committee."

Have you sent him your \$5?



REVAMPING GARNER SAMPLER

"We are revising the mechanical setup of the garner sampler which I spoke about at the Milwaukee convention," advises Director Jim Hayhoe of Cargill, Inc., Minneapolis, "and as soon as this is completed will send blue print so that the trade may use it with our compliments."



OUR VISITORS THIS MONTH

Since the Milwaukee convention we have had the pleasure of visits from: Percy C. Poulton, N. M. Paterson & Company, Ltd., Fort William; Malcomb M. Noxon, Ralston-Purina Company, Minneapolis; G. L. Parsons, Goderich (Ont.) Elevator & Transit Company, Ltd.; Joseph P. Wilke, Continental Grain Company, Peoria; Norman Boadway, Collingwood (Ont.) Terminals, Ltd.; Jack Coughlin, Brooks Elevator Company, Minneapolis; Harry Thoms, Stratton Grain Company, Milwaukee; Art Osgood, The Day Company, Minneapolis; Grover Meyer, Kansas City Power & Light Company; Vic Reid, Hart-Carter Company, Minneapolis; Gil Schenk, Weevil-Cide Corporation, Kansas City; George Patchin, Appraisal Service Company, Minneapolis; Frank Byrnes, formerly assistant to Louie Sayre of Rosenbaum Grain Corporation and Ray B. Bowden, Executive Vice President, Grain & Feed Dealers National Association, Washington, D. C., and St. Louis.

Hope we haven't missed anyone unintentionally. Remember, we want to see you when you're in Chicago!

Membership Committee Active

At the request of T. C. Manning, President of the Superintendents' Society, we will present monthly the cumulative accomplishments of active members who have been credited with new memberships since March 1st, 1939. To date they are:

- 1-James Mackenzie, Three Rivers (Que.) Grain Elevator Company
- 1-Fred Myers, Cleveland Grain Company, Indianapolis
- 2-T. C. Manning, Uhlmann Grain Company, North Kansas City
- 2-William H. Gassler, Rosenbaum Brothers, Chicago
- 1-Andrew Rankine, Canada Malting Company, Ltd., Montreal
- 1-James Shaw, Canadian Pacific Elevator, Port McNicoll, Ont.
- 1-R. E. Garber, Enid (Okla.) Terminal Elevator Company
- 1-William Kritter, Froedtert Grain & Malting Company, Milwaukee
- 1-Gilbert Lane, Arcady Farms Milling Company, Chicago



PNEUMATIC UNLOADING COSTLY

Pneumatic unloading is about three times as costly as mechanical unloading, in the many years experience of Mr. L. M. Bangs, General Super for Albert Dickinson Company, Chicago, soy bean, seed and feed house.

"Breakage will be in direct ratio to the dryness of the material handled and the distance travelled. Kiln-dried corn, for instance, cannot be handled satisfactorily pneumatically.

"Also, an 8,000 bushel per hour plant will take at least 300 H.P., and we also find that it takes 150 H.P. for 4,000 bushels for a distance of 150 feet."



GOOD TURNOUT AT MINNEAPOLIS

"The Minneapolis boys had a fine turnout at their April meeting," reports Oscar Olsen of Duluth, who with Clarence Turning, Society's Safety Director, drove down from Duluth to attend. "About forty-five were out for the affair," he says.

PROPOSED PICNIC

"The Minneapolis Chapter is proposing a picnic in the vicinity of Duluth," reports Clarence Turning. "And they're planning on a lively turnout from Fort William, Port Arthur, and Duluth-Superior. This project has been up before but this time it appears that plans will be carried through."



ON THAT CORN GUESSING CONTEST

At the Milwaukee convention the Ben J. Many Corporation conducted a guessing contest on how many kernels of corn there were in a glass jar. The answer was — and it was officially counted and checked by Weighmaster Ladd's Office — was 3808.

Percy Poulton, N. M. Paterson & Company, Ltd., Fort William, walked off with the closest guess of 3,788, followed by E. J. Martin, Norfolk (Va.) Elevator Company with 3,656, and Jack Coughlin, Brooks Elevator Company, Minneapolis, with 4,000.

Top three guessers were Al Schaezner, Froedtert Grain & Malt Company, Milwaukee, with 15,000; Ed Raether, Rosenbaum Brothers, Omaha, 13,200, and R. E. Garber, Enid (Okla.) Terminal Elevator Company, 10,000.

Bottom three guessers were Charlie Grossman, Equity Union Co-operative Exchange, Enid, 1,050; Clarence Swearingen, Moore-Seaver Grain Company, Kansas City, 1,200, and Slim Carlson, Russell-Miller Milling Company, Duluth, 1,250.



WHEN IS WHEAT SCOURED?

"We discussed at length when wheat is scoured and when it is not," advises Charles Walker, Archer-Daniels-Midland Company, Omaha, President of the Omaha-Council Bluffs Chapter, in reporting on the excellent meeting they held last month with unusually splendid attendance. "We had twenty-two at our meeting on March 16th, when our bosses met with us in an 'up-and-at-'em' session."



MINNEAPOLIS CHAPTER TO ELECT

The annual election of officers of the Minneapolis District Chapter is slated for this month. This is so far the largest unit in the Superintendents' Society, however Kansas City promises to give them a "heavy" run for top place soon.

TIME OUT!

By Chet Smith



I'm telling you, Jeeves, he's been this way ever since he won the Derby.

K. C. CHAPTER IN MEMBERSHIP DRIVE

"Members of the Kansas City District Chapter were just divided into two teams for a new membership drive," reports National President T. C. Manning of Uhlmann Grain Company. "The losers will put on a feast for the winners.

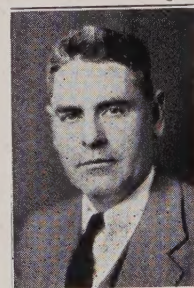
"In addition, one of our members has offered a year's membership to the individual turning in the largest number of new Superintendent memberships, so we anticipate quite a heated drive.

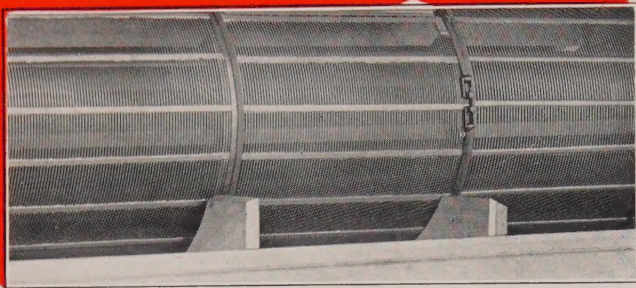
"We're going to lead the other Chapters in this direction and really show them some records to shoot at—and at that we have nearly 100% of the K. C. Elevator Supers as members now. We expect most of our new membership to come from processing plants and nearby points including Independence, Atchison, Topeka, Lawrence, Leavenworth, St. Joe, and so on."



S-O-S FROM HAROLD WILBER

Harold Wilber, A. E. Staley Mfg. Company, Decatur, Illinois, is nervously perturbed over extending his passenger elevator up considerable distance above the top floor and covets suggestions from his Superintendent friends around the country. This is among a list of other extensions and improvements he is considering.





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